

**Notice of Allowability**

Application No.

09/476,093

Examiner

Charles Chow

Applicant(s)

SORRELLS ET AL.

Art Unit

2685

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/4/2005.
2. ☒ The allowed claim(s) is/are 1, 7-9, 12, 13, 15-17, 20-24 and 506.
3. ☒ The drawings filed on 16 November 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

**Detailed Action**  
***Allowable Subject Matter***

1. The following is an examiner's statement of reasons for allowance:

Applicant amended **claim 1**, to include the allowable features for the **aliasing said channel band combination according to an aliasing signal, said signal having an aliasing frequency, said aliasing frequency being a function of a clock signal, thereby, generating a down-converted baseband signal including said channel/band combination**, so that the primary, secondary references, Hongu et al. (US 4,132,952), Gordy (US 4,346,477), do not teach the claimed features above (applicant amendment page 9-10). The dependent **claims 5-6** are also allowable due to their dependency and having additional claimed features. **Claims 7-9, 12** were allowed in the previous office action (12/28/2004). **Claims 13, 15-16, 20-24** are also allowable from applicant's amendment in independent claims 13, 20, to recite similar features above (applicant amendment, middle lower paragraph of page 10, and last paragraph on page 11). This application claims the benefit of continuation of 60/111,847, dated 01/22/1999.

Claims 1, 5-9, 12-13, 15-17, 20-24 are allowable over the prior art of record, the prior art fails to teach singly, particularly, or in combination, the subject matter, for a receiver having multi-mode and multi-band functionality and capability to selectively operating over a plurality of bands and channels in the family radio service system FRS of the citizens band radio services, for the automatic channel/band selection to reduce the complexity, by utilizing the universal frequency translator 118, for the aliasing the receiving signal having aliasing frequency being a function of a clock signal thereby generating a down converted base band signal including said channel/band combination [claims 1, 13, 20].

The closest prior art **Hongu et al. (US 4,132,952)** teaches the identifying desired channel by setting a local oscillator frequency for the desired channel, and to allow desired signal in a channel to pass through, and arrived at mixer (col. 3, lines 40-54), the mixer 15 provides the down converted signal which are then filtered by filter 17L, 17H (Fig. 2, col. 3, lines 27-29). Hongu fails to teach the features the aliasing said channel band combination according to an aliasing signal, said signal having an aliasing frequency, said aliasing frequency being a function of a clock signal, thereby, generating a down-converted baseband signal including said channel/band combination.

**Gordy (US 4,346,477)** teaches a sampler 20 receives output signal from digital oscillator 22 for aliasing received, channel/band, signal via selectable band pass filter 14, channel selector 16 (Fig. 1, col. 2, lines 58-col. 3, line 25), the frequency selectable digital oscillator 22 has frequency which is a function of the received reference clock 42 (Fig. 6, col. 6, line 64 to col. 7, line 12), the translated signal portions of the harmonics energy at the output of the sampler 20 (Fig. 3, col. 4, lines 44-68), the eliminate all but one down converted harmonic (col. 3, lines 3-8). Gordy fails to teach a down converted base band signal including the channel/band combination (applicant's Fig. 1, the down converted signals associated with the output filters 124-130).

Other prior arts in below has been considered, but they fail to teach the above claimed features.

**Lam et al. (US 5,937,013)** teaches the blocks 380, 330 for controlling the down conversion, (Fig. 3), for frequency translation operated according to the control signal generated by the circuit blocks 380, 330, the efficient under sampling down conversion without using high power high bandwidth for many low power design (col. 3, lines 51-67).

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**Smith et al. (US 5,790,587)** teach the IF/demodulation 730 acting as a spectrum decoder (col. 18, lines 51-58) for the decoding said filtered down converted to create a decoded down converted signal (Fig. 9-13, Fig. 14/Fig. 15; col. 1, lines 22-25; col. 2, line 46 to col. 4, line 5; col. 4, lines 46-28; col. 18, lines 4-67, abstract).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

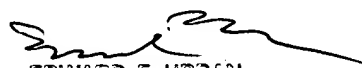
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles C. Chow whose telephone number is (703)-306-5615. The examiner can normally be reached on 8:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (703)-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles Chow *CC*

April 26, 2005.

  
EDWARD F. URBAN  
SUPERVISOR, PATENT LAW & NEW  
TECHNOLOGY CENTER 2685